

# **Preliminary PHM COE Workshop Report**

## **Overview**

There were 36 participants (non-Sandian), representing government, industry, and academia. Twenty-four of those participants completed the survey questionnaire during the workshop and this document summarizes their responses. Several submitted questionnaires by e-mail. Their responses have not been incorporated into this preliminary report. The final PHM COE Workshop Survey Report will be made available once the remaining questionnaires have been read and their responses integrated.

## **Continued Support for Establishing COE:**

Based on an overall review of each survey there appears to be strong support for establishing a PHM Center of Excellence. Twelve of the respondents were strongly in favor of continuing the effort and 12 respondents were on the fence for a variety of reasons.

## **Proposed Functions of the PHM COE:**

### **Administrative:**

Most respondents viewed the COE as an advocacy organization to collectively represent PHM to funding organizations and to educate potential customers/users on the value of PHM technologies as an integral part of product development and life cycle management. Other opportunities for the COE include: the development of standards; being an honest broker for technology evaluation; knowledge warehouse for information exchange, benchmarks, successes, real world data storage, lessons learned, sharing of resources and approaches.

### **Technical and Technology Development:**

Although there was not an overwhelming desire to use the COE as a tool for developing technology, several respondents did mention leveraging resources to identify/develop test capabilities, develop common language architecture.

- Sensors
- Modeling and Simulation
- Solder Joints
- Corrosion
- Electronics
- Wireless Sensing
- System Maintenance

## **Issues Raised by Respondents:**

- As stated several times during the workshop, the major issue that needs to be addressed is how the COE will effectively exchange information that is considered company proprietary and how will intellectual property be handled.
- What is the structure of the COE?
- Draft a COE Charter/Business Plan that includes a mission statement, goals and objectives, roles and responsibilities, funding sources, etc. for the COE.
- What is Sandia's role in the COE?

- Phase II should define roles and responsibilities of the board and other members of the COE.
- Develop convincing story for upper management to support COE.
- Develop briefing charts in preparation of next meeting.
- Make workshop information and survey summary available on website ASAP.
- Find customer for PHM and include them in next meeting of COE.
- Next meeting should be more user friendly, have internet access, cell phone access – off site if hosted by Sandia.
- Add PHM gap analysis to roadmap.
- COE meeting should be more inclusive – a few attendees dominated the discussion.

### **Opportunities:**

- Collectively develop and sign a white paper that discusses the need to expedite the development of PHM technologies and highlights the importance and benefit for multiple product platforms, near-term and long-term. The white paper would be used to advocate both internally and externally.
- The need for all types of sensors was identified by most respondents as well as discussed during the workshop. There may be an opportunity for the COE members to identify specific sensor or sensor based systems that could be designed and developed pre-competitively. There was strong interest in Sandia's sensor development activities.
- Develop PHM fact sheet to be used for marketing and advocacy.
- Develop PHM "Best Practices" list.
- Identify opportunities for leveraged technology development.

### **Willingness to Work with Sandia:**

Most respondents express a willingness to work with Sandia on technology development if there was a need identified. A couple of respondents have reservations about working with Sandia based on prior experience.

### **Others With Interest in PHM and Possible Funding Sources:**

- DARPA, JPL, NASA Marshall, DOD, Army, Navy Air Force, TACOM, ARDEC, TARDEC, PEO Ships, PEO Carriers, PEO IWS, ARL, AFRL, FAA, DOC, NIST, FCS, ADEPT, Army Sustainment, BAA SBIRS
- SEM, CALCE, MIMOSA, IEEE, SAE, NDIA

### **COE Board Action Items:**

- Will their organization participate on the COE Board
- Will their organization endorse the COE
- Will their organization support COE – provide information, data, etc.
- Will their organization help fund COE